

rays of several Colours made as well by thin Plates or Bubbles, as by refractions of a Prism, have several degrees of refrangibility, whereby those of each order, which at their reflexion from the Plate or Bubble are intermixed with those of other orders, are separated from them by refraction, and associated together so as to become visible by themselves like Arcs of Circles. For if the rays were all alike refrangible, 'tis impossible that the whiteness, which to the naked sense appears uniform, should by refraction have its parts transposed and ranged into those black and white Arcs.

It appears also that the unequal refractions of different rays proceed not from any contingent irregularities; such as are veins, an uneven polish, or fortuitous position of the pores of Glass; unequal and casual motions in the Air or Æther; the spreading, breaking, or dividing the same ray into many diverging parts, or the like. For, admitting any such irregularities, it would be impossible for refractions to render those Rings so very distinct, and well defined, as they do in the 24th Observation. It is necessary therefore that every ray have its proper and constant degree of refrangibility connate with it, according to which its refraction is ever justly and regularly performed, and that several rays have several of those degrees.

And what is said of their refrangibility may be also understood of their reflexivity, that is of their dispositions to be reflected some at a greater, and others at a less thickness, of thin Plates or Bubbles, namely, that those dispositions are also connate with the rays, and immutable; as may appear by the 13th, 14th, and 15th

15th Observation eighth.

By the preceding whiteness is a diffused Light is a mixture of Colours. For confirmed Colours, in the manifest that alterations there appear Rings, yet there is so much interference of those eight or nine wholly, and consequently whiteness. And allowed a mixture conveys it to the with all those Colours.

But further, be that there is a constant Refrangibility, the least refrangible Colours having proper refrangibility. And observations, compared to be the same constant Reflexibility, the reflected at least thickness the red at greater Colours at intermediate lows, that the constant connate with them